§ 197.404

- (b) Prior to permitting any commercial diving operation involving liveboating to commence, the person-in-charge shall insure that—
- (1) A means of rapid communications with the diving supervisor while the diver is entering, in, or leaving the water is established; and
- (2) A boat and crew for diver pickup in the event of an emergency is provided.
- (c) The person-in-charge shall insure that a boat and crew for SCUBA diver pickup is provided when SCUBA divers are not line-tended from the dive location.
- (d) The person-in-charge shall coordinate the activities on and of the vessel or facility with the diving supervisor.
- (e) The person-in-charge shall insure that the vessel or facility equipment and personnel are kept clear of the dive location except after coordinating with the diving supervisor.

§ 197.404 Responsibilities of the diving supervisor.

- (a) The diving supervisor shall—
- (1) Be fully cognizant of the provisions of this subpart;
- (2) Be fully cognizant of the provisions of the operations manual required by §197.420;
- (3) Insure that diving operations conducted from a vessel or facility subject to this subpart meet the regulations in this subpart;
- (4) Prior to the commencement of any commercial diving operation, provide the report required by §197.402 to the person-in-charge;
- (5) Coordinate with the person-incharge any changes that are made to the report required by §197.402; and
- (6) Promptly notify the person-incharge of any diving related casualty, accident, or injury.
- (b) The diving supervisor is in charge of the planning and execution of the diving operation including the responsibility for the safety and health of the dive team.

§197.410 Dive procedures.

- (a) The diving supervisor shall insure that—
- (1) Before commencing diving operations, dive team members are briefed on—

- (i) The tasks to be undertaken;
- (ii) Any unusual hazards or environmental conditions likely to affect the safety of the diving operation; and
- (iii) Any modifications to the operations manual or procedures including safety procedures necessitated by the specific diving operation;
- (2) The breathing gas supply systems, masks, helmets, thermal protection, when provided, and bell lifting equipment, when a bell is provided or required, are inspected prior to each diving operation;
- (3) Each diver is instructed to report any physical problems or physiological effects including aches, pains, current illnesses, or symptoms of decompression sickness prior to each dive;
- (4) A depth, bottom time profile, including any breathing mixture changes, is maintained at the dive location for each diver during the dive, except that SCUBA divers shall maintain their own profiles;
- (5) A two-way voice communication system is used between—
- (i) Each surface-supplied diver and a dive team member at the dive location or bell (when provided); and
- (ii) The bell (when provided) and the dive location;
- (6) A two-way communication system is available at the dive location to obtain emergency assistance;
- (7) After the completion of each dive—
- (i) The physical condition of the diver is checked by—
- (A) Visual observation; and
- (B) Questioning the diver about his physical well-being;
- (ii) The diver is instructed to report any physical problems or adverse physiological effects including aches, pains, current illnesses, or symptoms of decompression sickness or gas embolism;
- (iii) The diver is advised of the location of an operational decompression chamber; and
- (iv) The diver is alerted to the potential hazards of flying after diving;
- (8) For any dive outside the no-decompression limits, deeper than 130 fsw, or using mixed-gas as a breathing mixture—
- (i) A depth, time, decompression profile including breathing mixture

changes is maintained for each diver at the dive location;

- (ii) The diver is instructed to remain awake and in the vicinity of the dive location decompression chamber for at least one hour after the completion of a dive, decompression, or treatment; and
- (iii) A dive team member, other than the diver, is trained and available to operate the decompression chamber; and
- (9) When decompression sickness or gas embolism is suspected or symptoms are evident, a report is completed containing—
- (i) The investigation for each incident including—
- (A) The dive and decompression profiles:
- (B) The composition, depth, and time of breathing mixture changes;
- (C) A description of the symptoms including depth and time of onset; and
- (D) A description and results of the treatment;
- (ii) The evaluation for each incident based on—
 - (A) The investigation;
- (B) Consideration of the past performance of the decompression table used: and
 - (C) Individual susceptibility; and
- (iii) The corrective action taken, if necessary, to reduce the probability of recurrence.
- (b) The diving supervisor shall ensure that the working interval of a dive is terminated when he so directs or when—
 - (1) A diver requests termination;
- (2) A diver fails to respond correctly to communications or signals from a dive team member;
- (3) Communications are lost and can not be quickly reestablished between—
- (i) The diver and a dive team member at the dive location; or
- (ii) The person-in-charge and the diving supervisor during liveboating operations; or
- (4) A diver begins to use his divercarried reserve breathing gas supply.

§ 197.420 Operations manual.

- (a) The diving supervisor shall—
- (1) Provide an operations manual to the person-in-charge prior to com-

mencement of any diving operation; and

- (2) Make an operations manual available at the dive location to all members of the dive team.
- (b) The operations manual must be modified in writing when adaptation is required because of—
- (1) The configuration or operation of the vessel or facility; or
- (2) The specific diving operation as planned.
- (c) The operations manual must provide for the safety and health of the divers.
- (d) The operations manual must contain the following:
- (1) Safety procedures and checklists for each diving mode used.
- (2) Assignments and responsibilities of each dive team member for each diving mode used.
- (3) Equipment procedures and checklists for each diving mode used.
 - (4) Emergency procedures for—
 - (i) Fire;
 - (ii) Equipment failure;
- (iii) Adverse environmental conditions including, but not limited to, weather and sea state;
 - (iv) Medical illness; and
 - (v) Treatment of injury.
- (5) Procedures dealing with the use of— $\,$
 - (i) Hand-held power tools;
- (ii) Welding and burning equipment; and
 - (iii) Explosives.

SPECIFIC DIVING MODE PROCEDURES

§ 197.430 SCUBA diving.

The diving supervisor shall insure that—

- (a) SCUBA diving is not conducted—
- (1) Outside the no-decompression limits:
 - (2) At depths greater than 130 fsw;
- (3) Against currents greater than one (1) knot unless line-tended; and
- (4) If a diver cannot directly ascend to the surface unless line-tended;
- (b) The SCUBA diver has the equipment required by \$197.346(a);
- (c) A standby diver is available while a diver is in the water;
- (d) A diver is line-tended from the surface or accompanied by another diver in the water in continuous visual contact during the diving operation;